

ALLENWOOD BRIDGE

spanning the Susquehanna River
on State Route 44, between Allenwood,
Union County, and Dewart, Northumberland County
Dewart Vicinity
Northumberland County
Pennsylvania

HAER No. PA-130

HAER
PA
49-DEW.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Mid-Atlantic Region
National Park Service
Department of the Interior
Philadelphia, Pennsylvania 19106

HISTORIC AMERICAN ENGINEERING RECORD

ALLENWOOD BRIDGE

HAER NO. PA- 130

HAER
PA
49-DEW.V
1-19

Location:

spanning the west branch of the
Susquehanna River on State Route 44,
Section 004, between Allenwood,
Union County, and Dewart,
Northumberland County, Pennsylvania

UTM:18.341280.4552220

Quad: Allenwood

Dates of
Construction:

1895-1896

Present Owner:

Commonwealth of Pennsylvania
Department of Transportation
Transportation and Safety Building
Commonwealth Avenue and Forester Street
Harrisburg, Pennsylvania 17120

Present Use:

Vehicular bridge.

Significance:

Spanning the Susquehanna River at a long-established historic river crossing, the Allenwood Bridge is one of the oldest and longest spans crossing that river. Its builder, the Groton Bridge and Manufacturing Company, was a nationally prominent bridge manufacturer from 1877 through 1920.

Project Information:

This documentation was performed from June 1988 through March 1989 to fulfill the Memorandum of Agreement by the Pennsylvania Department of Transportation as a mitigation measure prior to demolition of the structure.

Wilbur Smith Associates (Pittsburgh, PA) and
P.A.C. Spero & Company (Baltimore, MD)

ALLENWOOD BRIDGE
HAER NO. PA-130(Page 2)

The Allenwood Bridge is a two-lane through Pratt truss bridge spanning the West Branch of Pennsylvania's Susquehanna River, approximately 5,800 feet north of the mouth of Delaware Run. It consists of a five-span, pin-connected Pratt truss bridge measuring 966 feet in length. The bridge carries State Route 44 and provides a crossing between the communities of Allenwood (Gregg Township, Union County) in the west and Dewart (Delaware Township, Northumberland County) in the east. Route 44 connects U.S. Route 15 on the west and State Route 405 on the east.

The fourth bridge to be located at the site, the present Allenwood Bridge was constructed in 1895-1896 on the abutments and piers of a previous structure. The bridge comprises five truss spans. Four trusses consist of eleven panels and measure 187 feet long, while one comprises twelve panels and measures 210 feet long. The bridge was commissioned by the Joint Commissioners of Union and Northumberland Counties and built by Smith and Campion, General Contractors, of Mahanoy City, Pennsylvania with the Groton Bridge and Manufacturing Company of Groton, New York.

Located at a long-established river crossing, the history of the bridge site is tied closely to the history of the area's settlement. Since the early nineteenth century the Allenwood crossing had served as a crucial link joining the economies of the east and west banks of the West Branch of the Susquehanna. First serving the settlers as a fording place, then the location of a ferry crossing, the site was not spanned by a bridge until 1852. The canal on the east bank, and later the railroads on each bank, provided transportation for bulk goods being produced and harvested in the surrounding townships on both sides of the river. The towns of Allenwood and Dewart, therefore, served as vital commercial centers. The establishment and longevity of stores and small industries on both sides of the river indicate the importance of this crossing to local residents and their economy.

White settlers first began migrating into the fertile valley of the West Branch of the Susquehanna River, between the Montour and Shamokin ridges, in the 1750s. Early attempts at settlement, however, were eliminated by the Penn's Creek Massacre of 1755. Over ten years later, in 1768, a new treaty was negotiated with the tribes of the Six Nations which reopened the territory to white settlers. This territory, "New Purchase" as it was called, was surveyed in 1769. As payment for their services in the French and Indian War, officers of the 1st and 2nd Pennsylvania Regiments received large choice parcels of New Purchase along the West Branch of the Susquehanna.

Captain William Piper, a French and Indian War veteran, was granted three tracts of land as his reward. One of these tracts contained a 609-acre parcel on the east bank of the West Branch of the Susquehanna River. This parcel included most of the land

between the Susquehanna and Delaware Run. The village of Dewart and the east end of the Allenwood Bridge project area are today located on this parcel.

The early settlers on Piper's tract were largely Scots and Germans. Among the early industries that developed in the area were saw mills, distilleries, and potash and soda ash manufacturers. By 1772 the area was incorporated into Turbut (now Delaware) Township. Just prior to the start of the American Revolution, Stephen Nicely of Lancaster County, acquired from Piper 200 acres of land bordering the river. Nicely established a farmstead on this land.

Piper's land continued to change in use, when in 1857, the village of Dewart was laid out by William Hall, William Mara, and William Nagle. The village received its name in tribute to William T. Dewart, a congressman from the district. He was responsible for having a post office established in the village. Dewart soon became a rural commercial center for the products of the White Deer Valley. The village's first and most important business was the grain trade. By the late 1860s Dewart's several grain companies were shipping approximately 200,000 bushels annually. The opening of the Philadelphia and Reading Railroad in 1872, on the west side of the river, near Allenwood, reduced the importance of grain to Dewart's economy. Grain transport was no longer limited to the east side of the river and Dewart was no longer the only shipping depot in the area. Nonetheless, in 1891 Dewart had a population of 200, four general stores, a confectionery, tin shop, hotel, warehouse, blacksmith shop, wagon shop and a creamery operated by M.A. Nicely. Today, the village is primarily residential in character with only a few businesses.

Allenwood is located a mile west of Dewart, across the Susquehanna. It began as a 21-acre parcel acquired by John McCurdy in 1792. Prior to this, settlement in the area was limited to a cabin built by Thomas Weisner in 1787 on the river bank, at the crossing near the site of the present Allenwood Bridge. In 1808 McCurdy erected a tavern near the intersection of present-day Route 15 and Route 44. By 1815 he had laid out house lots north of the tavern, on a 327 acre parcel he acquired from Conrad and Abraham Tinsbrook in 1809. He subsequently named his developing village "Uniontown".

The establishment of Uniontown, the precursor to the town of Allenwood, coincided with the intensive settlement of the Susquehanna West Branch Valley in the early nineteenth century. Settlers were drawn to the valley by the fertile land and abundant lumber supply. The growing settlement and its developing economy called for improved roads and a reliable crossing of the Susquehanna to handle the increasing commercial traffic.

By 1816 regular ferry service had been established at the fording place of the river. In January 1816 several of the residents of Turbut Township successfully petitioned the Northumberland County Commissioners to have a realigned, more direct road built to the river to improve access to and from this ferry. This road, a predecessor of the present day Route 44, ran from the eastern bank of the Susquehanna, over Delaware Run, past the Stephen Nicely Farm, and continued east. This route, as well as the present day Route 405, mirrored the Shamokin Warpath, a former major Indian overland route. On the west bank of the Susquehanna the path to the ferry ran west to Uniontown.

Thirteen years later in 1829, when the Pennsylvania Canal (also known as the West Branch Canal) was constructed, the Turbut Ferry Road was widened to 33 feet to accommodate the increased commercial traffic. The canal was constructed on the alignment of the former road from Muncy to Milton. This road ran on the east side of the river from the town of Muncy, in the north, south to Milton, intersecting the east/west river road to the ferry several feet to the west of Delaware Run. To the immediate west of the canal was located Antrim's store.

The canal fell into disuse after the 1852 construction of the Pennsylvania and Lake Erie Railroad, a half mile east of the canal. The railroad had a stop at Dewart. By 1900 the canal was included in property acquired by the Nicely family. By that time their extensive land holdings included the property north of the ferry road and east of Delaware Run. Former structures, such as Antrim's Store, were removed, the canal filled in, and the land brought under cultivation.

The location of these transportation routes caused Uniontown to become an important link for traffic heading east across the Susquehanna with materials to be transported on the canal and later the railroad. The increased use of the site required a more efficient crossing than the ferry. A group of Uniontown merchants took advantage of this and formed a bridge company, the White Deer Bridge Company, to facilitate transportation across the Susquehanna. In 1852 a wooden toll bridge replaced the ferry. The bridge cost \$26,225.00 to construct. A toll house was erected on the Uniontown side of the bridge road.

One of the principal stockholders of the bridge company was H.P. Allen, owner of the Allen Lumber Company. By 1861 Allen had opened a general store in Uniontown. He succeeded in buying the vacant farm land between the river and the village and in 1872 he laid out eight additional lots. He also donated land for the Uniontown railroad depot when the Philadelphia and Reading Railroad was constructed. By 1880 the name of the village was changed to Allenwood in his honor.

ALLENWOOD BRIDGE
HAER NO. PA-130(Page 5)

At the end of the nineteenth century, when the fourth and current Allenwood Bridge was constructed, Allenwood had a population of 300, two hotels, two stores, a grist mill, lumber yard, planing mill, school, and a Presbyterian chapel.

The site's first bridge, the 1852 wooden toll bridge, was rendered impassable by the St. Patrick's Day flood of March 1865, which caused extensive damage to the valley. The bridge was subsequently repaired at a cost of \$13,112.00. Periodic flooding of the river often resulted in damage to, or replacement of, the successive wooden bridges at the Allenwood crossing. Records do not indicate the designs of any of these earlier bridges. However, since the river's width at this location is over 900 feet, these bridges were most likely supported by several stone piers.

On June 1, 1889 a flood caused twenty-five to thirty million dollars in property damage to the West Branch Valley, and entirely destroyed the rebuilt bridge. The White Deer Bridge Company built a replacement bridge. Because privately owned bridges often remained out of service for long periods after they were damaged, the Pennsylvania Legislature passed an act in June 1891 authorizing counties to take over any privately owned bridges that had been destroyed, abandoned, or inappropriately maintained.

Apparently, the White Deer Bridge Company raised the bridge tolls in order to help cover the costs of rebuilding the bridge. In December 1891 sixty Allenwood residents complained to the Union County Court of Quarter Sessions of the Peace that the toll charges were too burdensome. They further asked that the County take over the bridge. The Board of Commissioners for Union and Northumberland Counties inspected the bridge on January 30, 1892, and found that the toll charges were fair.

In December 1893 Allenwood residents again presented a petition for a free bridge. In March 1894 the Board of Commissioners of both counties again turned down their request by a vote of 4 to 2.

Another record flood, on May 21, 1894, completely destroyed the bridge once again. It seems that the White Deer Bridge Company was unable or unwilling to rebuild the bridge a third time. However, at the same time, the Commissioners of both counties appeared reluctant to acquire the bridge site for the County despite numerous petitions by the residents.

The stockholders of the White Deer Bridge Company met at the toll house in November 1894 and overwhelmingly voted (429 to 86) in favor of surrendering the company charter and transferring the bridge site to county control. The County

Commissioners still declined to take the necessary steps to acquire the bridge site. Finally, one Allenwood resident, Anthony Armstrong, brought legal suit against the Commissioners of Union County at the Court of Common Pleas on behalf of the residents of Allenwood. The Judicial decision made at the March Term 1895 was in favor of Armstrong. The decision read: "The Commissioners of Union County are required to rebuild and reconstruct the bridge....as provided by the Act of Assembly of 16 June 1891....provided the Commissioners of Northumberland County join in rebuilding and reconstructing and pay a proportionate share in costs and maintenance...".

As a result of this decision, the Union County Commissioners met with the Northumberland County Commissioners in June 1895 to discuss plans for rebuilding the bridge. In a joint meeting of the Commissioners, a Mr. Conger of the Groton Bridge and Manufacturing Company offered to rebuild the superstructure for \$25,000 and have it ready for vehicles by October 1, 1895. General Contractors Smith and Campion offered to rebuild the east abutment and top out all old piers and the west abutment at unit costs, and have the substructure ready for the iron work. When brought to a vote, the motion lost.

In a subsequent joint meeting on July 3, 1895 eighty citizens of Union and Northumberland Counties petitioned the commissioners to accept the offers of Smith and Campion and the Groton Bridge and Manufacturing Company. This motion was brought to a vote and again lost.

At that point the Joint Commissioners employed William Perry, of Perry and Reeder, Engineer for the Joint Board of Commissioners, to develop plans and specifications for the proposed structure. The Plans and Specifications were advertised for bid and the Joint Commissioners selected the firm of Smith and Campion at a bid price of \$36,500.00. The superstructure was subcontracted to the Groton Bridge and Manufacturing Company of Groton, New York for the sum of \$25,000.00. The bridge abutment and pier rebuilding work was performed by Smith and Campion. In a separate contract William E. Campbell rebuilt the East and West approaches for the Joint Commissioners.

C. O. Smith and P. J. Campion, the general contractor for the 1895 Allenwood Bridge, was a small construction firm that apparently specialized in masonry and related foundation construction activities. Headquartered in Mahanoy City, Pennsylvania, they seem to have practiced in central and eastern Pennsylvania. No records of their other construction activities or history of the company have been found.

Smith and Campion rebuilt the abutments and piers of the Allenwood Bridge. Made of ashlar masonry, both abutments and piers required various degrees of preparatory work prior to the superstructure construction. The remnant piers and east abutment probably date back to the 1860s. The east abutment was rebuilt twenty-three feet further from the river than the previous east abutment. The west abutment and piers were built higher before the erection of the superstructure.

The superstructure subcontractor, the Groton Bridge and Manufacturing Company of Groton, New York was among the major manufacturers of bridges in the last quarter of the nineteenth century. Although most of the firm's bridge building was conducted in the Mid-Atlantic region, they built bridges in at least twenty-seven states and in the District of Columbia. The firm at various times had as many as eleven branch offices.

The Groton Iron Bridge Company was formed in 1877 from the merger of the Charles Perrigo and Company, iron foundry, and the Groton Separator Works, an agricultural machinery manufacturer. The company was incorporated as the Groton Bridge and Manufacturing Company in 1887. The Charter described the purposes of the corporation as "Carrying on and conducting the manufacture of iron bridges, iron piling for bridges, portable steam engines, grain separators, hot air and steam heaters, and to do a general repairing and job work." Four patents were issued to the Groton bridge builders; two for innovations in the building of bridge piers and two for innovations in the superstructure itself. By 1888 the company employed 150 men.

The decade of the 1890s was a busy and profitable one for Groton. In 1891 the Groton Mechanics Indemnity Association was formed to provide insurance against accident and death of the men in the shops and yards of the company. In 1894 annual business had reached a level of \$500,000. In October of 1895 the firm reported that 360 bridges had already been contracted for that year. By the end of the decade, 1899, the company employed 160 men.

The Groton Bridge and Manufacturing Company was one of twenty-three regional bridge companies that were purchased, or otherwise obtained, during the formation of the American Bridge Company in 1899. In Groton the shop continued to operate for another year. In the fall of 1901 the bridge plant at Groton was closed and its machinery dismantled.

In April of 1902 Groton interests bought back their plant and purchased new equipment. They operated under the name, The Groton Bridge Company. During these years the company continued to build bridges, but it also enhanced its activities in other areas. These included working in the fabrication and erection of steel frames for

buildings; the construction of smoke stacks, water tanks, and cast iron and steel sluices; development of a steel and lead stair and car treads; and marketing of road building and highway maintenance equipment and supplies which it manufactured, including graders, concrete mixers, and road drags.

The Groton Bridge Company failed to become firmly established. By 1920 business was so diminished that the remaining equipment was sold to the American Bridge Company.

During the height of the company's history, the Allenwood Bridge was one of its products. The truss members manufactured and assembled by the company for the Allenwood Bridge were typical of truss bridges of the late nineteenth century. The top chords and end posts of the Allenwood trusses consist of built-up sections made of two channels with a cover plate and lattice bars. The bottom chords consist of double eyebars, die-forged and pin-connected at the lower joints. The main diagonals also are double eyebars, pin-connected at the upper and lower joints; secondary diagonals, or counters, are double round rods with pin-connected looped ends with turnbuckles near the midpoints for adjustment of the member. Groton embellished the portals of the end spans with decorative bridge plates which state the bridge date and the manufacturer. The bridge railing was a simple steel lattice configuration.

Construction of the Allenwood bridge began in December 1895 and was completed in late January 1896. William F. Campbell was contracted to provide and prepare fill for the west approach of the Allenwood Bridge by the Joint Commissioners on September 16, 1895. Allen and Nicely were contracted to prepare the east approach on November 7, 1895 by the Joint Commissioners. The January 18, 1896 Lewisburg Saturday News contained the notice that "our new bridge will open up for business next week since the planks are in. There is no finer bridge in the state". The bridge was officially opened on January 21. The ceremonies included a brass band and speeches by the commissioners. A news reporter wrote that the residents "celebrated the greatest event in the history of the town".

Extant incomplete bridge records, including those on file at the Northumberland County Court House at Sunbury, indicate that the bridge was painted at least three times in the first third of the twentieth century. In April 1904, the Canton Bridge Company of Canton, Ohio was contracted to clean, repaint (one coat) and tighten the joints of the Allenwood Bridge for \$455.00. The paint selected by the Joint County Commissioners was a brown graphite-oxide paint manufactured by Schroder, Smith and Schroder. The bridge was again repainted (two coats) in May 1913 by the Oswego

ALLENWOOD BRIDGE
HAER NO. PA-130 (Page 9)

Bridge Company of Oswego, New York for \$4,700.00. The undercoat, a dark red silica graphite paint, was manufactured by the Joseph Dixon Crucible Company. In 1930, the Allenwood Bridge was again repainted.

Other repairs made over the years include: replanking the deck and replacing 56 wooden stringers in December 1906, the installation of 2,070 feet of 1-1/2 inch black rail piping in July 1907, the replacement of wooden stringers with steel members and replanking the deck in July 1912, and replanking again in October 1918. A new floor was again added in 1924 and the approaches were reconstructed in 1928 and 1929.

On June 1, 1930 ownership of the bridge was assumed by the State Highway Department (Pennsylvania Department of Transportation) under a legislative act in which the state assumed ownership of all roads and bridges on state routes. Alterations to the structure in the years since the state assumed ownership have included the addition of a complete new floor and floor system in 1932; a new floor and wearing surface in 1940; the installation of new steel railing in 1954, general rehabilitation in 1962, repointing in 1977, and miscellaneous structural repair in 1977-78. The structural repairs included modifications to correct isolated members and joints in all the spans.

The Allenwood Bridge was nominated to the National Register of Historic Places as part of a thematic nomination of historic highway bridges owned by Pennsylvania Department of Transportation. It was inspected in 1986 and determined to be structurally and functionally inadequate for its site. Rehabilitation schemes for the existing bridge have been determined unfeasible. The bridge will be demolished and the fourth replacement bridge will be built to carry traffic across the Susquehanna River at this long-established river crossing.

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HAER NO. PA-130 (Page 11)
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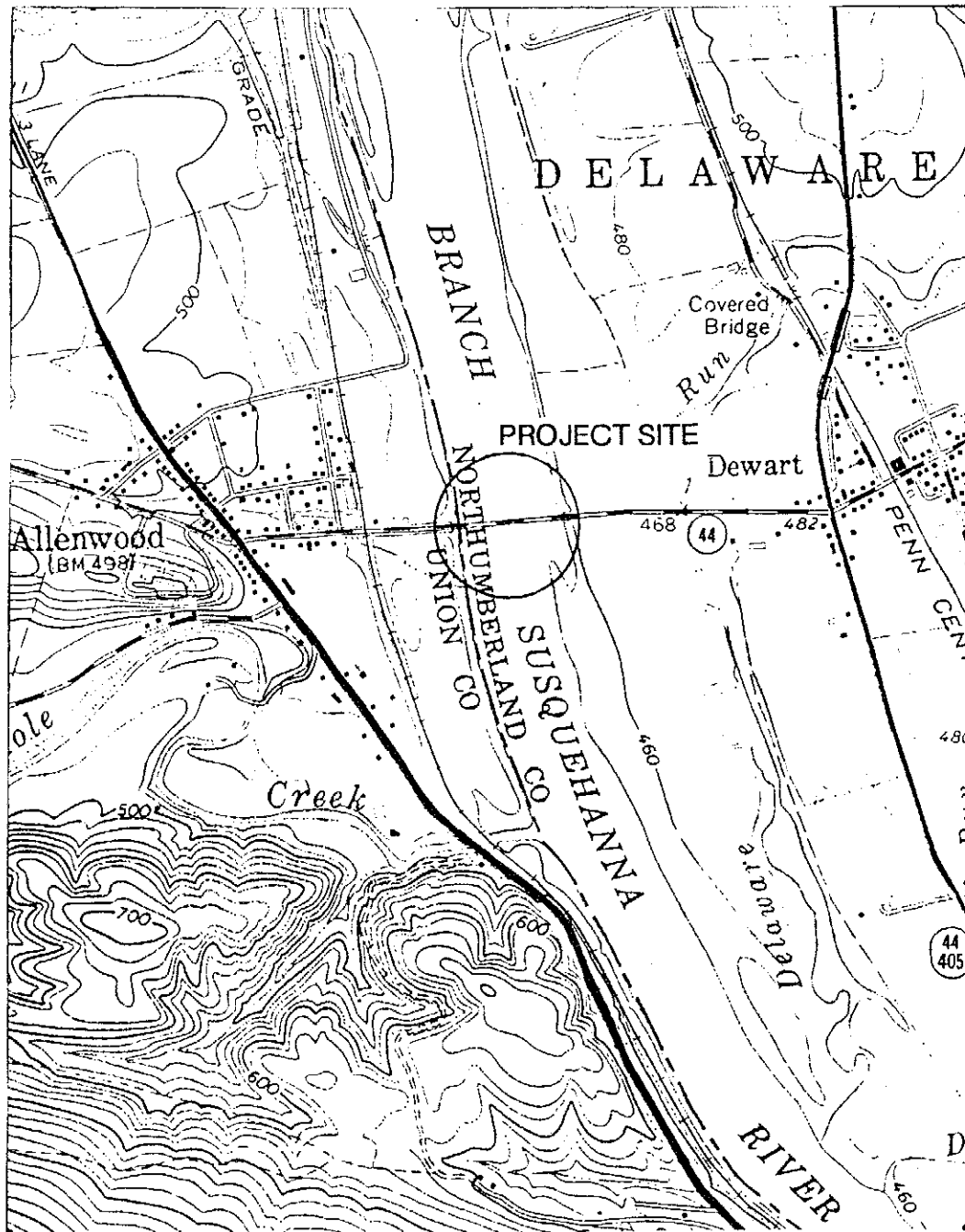
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ALLENWOOD BRIDGE
HAER NO. PA- 130 (Page 13)
Site Plan



ALLENWOOD BRIDGE
West Branch, Susquehanna River
S.R. 44, Section 004

LOCATION MAP
SCALE: 1" = 1,500'